

50C

A5

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/501,442
Source: PCT
Date Processed by STIC: 01/11/2006

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:33

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

```

4 <110> APPLICANT: Diversa Corporation
5     Kerovuo, Janne
6     Solbak, Arne
7     Gray, Kevin
8     McCann, Ryan
9     Purohit, Shalaka
10    Gerendash, Joel
11    Janssen, Giselle
12    Dahod, Samun
15 <120> TITLE OF INVENTION: PECTATE LYASES, NUCLEIC ACIDS ENCODING
16    THEM AND METHODS FOR MAKING AND USING THEM
19 <130> FILE REFERENCE: 564462009640
C--> 21 <140> CURRENT APPLICATION NUMBER: US/10/501,442
C--> 22 <141> CURRENT FILING DATE: 2004-07-13
24 <150> PRIOR APPLICATION NUMBER: 60/460,842
25 <151> PRIOR FILING DATE: 2003-04-04
27 <150> PRIOR APPLICATION NUMBER: 60/484,798
28 <151> PRIOR FILING DATE: 2003-07-03
30 <160> NUMBER OF SEQ ID NOS: 134
32 <170> SOFTWARE: FastSEQ for Windows Version 4.0
34 <210> SEQ ID NO: 1
35 <211> LENGTH: 1917
36 <212> TYPE: DNA
37 <213> ORGANISM: Unknown
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Obtained from an environmental sample
42 <400> SEQUENCE: 1
43 gtgtctctct ttagaaaact cgcactgctg gttctgtgcg gtctactgct ttctgtcgga      60
44 gcagaaaccc gagcgctcgaa gcgaattgtc gtggccgctg atggatcggg tgacgtcagg      120
45 acaattcaac aagcgggtgga ccagggtccc aaagacaata cacaccgggt cttgattcag      180
46 atcaaaccgg gtgtgtatca ggaacagggt cgtgtcgccg ccggcaaacg ctttatcact      240
47 tttcgcggcg acgatgcgag caagaccgtc atcacctatc gattgagcgc actgcaagcg      300
48 ggaaataccc ggctggcatt caccaccttc gttaatgcag acgactttcg cgccgagAAC      360
49 ctgacgtttg aaaactcctt cggcaccggg tcacaagcgg ttgctttgtt tgcgatgcg      420
50 gaccgcgcga cgtttgaaaa ctgccgggtc ctcgggttgg aggacacttt gtttgtgaac      480
51 ggcagccgcc acttcttcaa agactgctac gtcgaaggcc acgtcgattt cattttcggc      540
52 acggcctccg ccgtgtttga gaactgcacc attcacagca aaggcgaagg ttatgtgacc      600
53 gcacactatc gcaccagcga tgagatggat accggttttg tctttcatcg ttgtcgtttg      660
54 accggacgag acacgggccc cggagtttat ctcggaaggc cttggcgacc ttacgcgcgc      720
55 gtgctcttta tcgattgctg gctggacgca cacatcagac ctgaaggctg ggataattgg      780
56 agagatcctg aacgagagaa gaccgcgtgg tttgccgagt acaagtcaa agggcccggg      840
57 gctaateccg tagctcgtgt cgcgtggtcc aggcagttga cgacagaaca agccgccgag      900
58 ttttcgcggg aacgcttttt cagccgcgct gttcgcgggc tctctgggca ggccaaccag      960

```

RAW SEQUENCE LISTING

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:33

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

```

59 gcagtcggaa cgatcgcggtg ggacgatgcg cagaaaaaac cgaacgagtg gtatgcgagc 1020
60 gccgagggcgt tgcgcattgc cgacaacggt gttctttatc aacgtgactc cggcggttgg 1080
61 cccaagaaca tcgacatggg gaagccgctc gacgaaaagg gtcgagccgg tcttctgcgc 1140
62 gtgcgtaaga agaacgattc cagcatcgac aatggcgcgga cttacacgca actctcgttt 1200
63 ctggcgcgggg tttacacggc gcaaaagcag gagcggcgac gcgagtcggt tctgaaggga 1260
64 ctcgattacc tgttgaaggc gcagtatcca aacggagggt ggccgcagtt ctatcccaac 1320
65 ctcaacggct attacaaaca catcactttc aacgacaacg ccatgatcgg cgtgatgaaa 1380
66 ctgctgcgcg acgtagcgac agcgaaaccg gcgtatgcgt tcgtcgacga agcacgacgg 1440
67 acgagtcgcg cgaaggcggg cgaaaaagga atcgagtgcg tactgaagac gcagggtggtt 1500
68 gtgaatggcc ggcgcaccgt gtggtgtgcg caacatgacg aagtcacgct cgcgcctgcc 1560
69 ccggcgagga cgtttgaatt agtttcgctg agtggtggtg aaagcggttg gatcgtgcgc 1620
70 tttttgatgt cgatcaagaa cccgtcgccg gcggttgctg aggcgatcga gtcggcggtt 1680
71 gcgtggttcg agcaatcgca agtgaaagat cccgccggca aacctgcgtg ggccgcgattt 1740
72 tatgagatcg gcactaatcg tccgatcttc gccgggcggt acggcgctcg taagtatgat 1800
73 gtgaaacaga tcgatgagga acgacgaaag aattacgcat ggtacgttga cgacgcagcg 1860
74 aaactactga aaaccgacta tcttgagtgg aaagaaaaga acgccaaaga tcaatga 1917
76 <210> SEQ ID NO: 2
77 <211> LENGTH: 638
78 <212> TYPE: PRT
79 <213> ORGANISM: Unknown
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Obtained from an environmental sample
W--> 84 <221> NAME/KEY: SIGNAL
85 <222> LOCATION: (1)...(21)
W--> 87 <221> DOMAIN
88 <222> LOCATION: (28)...(308)
89 <223> OTHER INFORMATION: Pectin methyl esterase domain
W--> 91 <221> DOMAIN
92 <222> LOCATION: (309)...(638)
93 <223> OTHER INFORMATION: Catalytic domain
W--> 95 <400> 2
96 Met Ser Leu Phe Arg Lys Leu Ala Leu Leu Val Leu Cys Gly Leu Leu
97 1 5 10 15
98 Leu Ser Val Gly Ala Glu Thr Arg Ala Ser Lys Arg Ile Val Val Ala
99 20 25 30
100 Ala Asp Gly Ser Gly Asp Val Arg Thr Ile Gln Gln Ala Val Asp Gln
101 35 40 45
102 Val Pro Lys Asp Asn Thr His Pro Val Leu Ile Gln Ile Lys Pro Gly
103 50 55 60
104 Val Tyr Gln Glu Gln Val Arg Val Ala Ala Gly Lys Arg Phe Ile Thr
105 65 70 75 80
106 Phe Arg Gly Asp Asp Ala Ser Lys Thr Val Ile Thr Tyr Arg Leu Ser
107 85 90 95
108 Ala Leu Gln Ala Gly Asn Thr Arg Leu Ala Phe Thr Thr Phe Val Asn
109 100 105 110
110 Ala Asp Asp Phe Arg Ala Glu Asn Leu Thr Phe Glu Asn Ser Phe Gly
111 115 120 125
112 Thr Gly Ser Gln Ala Val Ala Leu Phe Val Asp Ala Asp Arg Ala Thr
113 130 135 140

```

RAW SEQUENCE LISTING

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:33

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

```

114 Phe Glu Asn Cys Arg Phe Leu Gly Trp Gln Asp Thr Leu Phe Val Asn
115 145 150 155 160
116 Gly Ser Arg His Phe Phe Lys Asp Cys Tyr Val Glu Gly His Val Asp
117 165 170 175
118 Phe Ile Phe Gly Thr Ala Ser Ala Val Phe Glu Asn Cys Thr Ile His
119 180 185 190
120 Ser Lys Gly Glu Gly Tyr Val Thr Ala His Tyr Arg Thr Ser Asp Glu
121 195 200 205
122 Met Asp Thr Gly Phe Val Phe His Arg Cys Arg Leu Thr Gly Arg Asp
123 210 215 220
124 Thr Gly Arg Gly Val Tyr Leu Gly Arg Pro Trp Arg Pro Tyr Ala Arg
125 225 230 235 240
126 Val Val Phe Ile Asp Cys Trp Leu Asp Ala His Ile Arg Pro Glu Gly
127 245 250 255
128 Trp Asp Asn Trp Arg Asp Pro Glu Arg Glu Lys Thr Ala Trp Phe Ala
129 260 265 270
130 Glu Tyr Lys Ser Lys Gly Pro Gly Ala Asn Pro Val Ala Arg Val Ala
131 275 280 285
132 Trp Ser Arg Gln Leu Thr Thr Glu Gln Ala Ala Glu Phe Ser Arg Glu
133 290 295 300
134 Arg Phe Phe Ser Arg Ala Val Arg Gly Leu Ser Gly Gln Ala Asn Gln
135 305 310 315 320
136 Ala Val Gly Thr Ile Ala Trp Asp Asp Ala Gln Lys Lys Pro Asn Glu
137 325 330 335
138 Trp Tyr Ala Ser Ala Glu Ala Leu Arg Ile Ala Asp Asn Val Val Leu
139 340 345 350
140 Tyr Gln Arg Asp Ser Gly Gly Trp Pro Lys Asn Ile Asp Met Gly Lys
141 355 360 365
142 Pro Leu Asp Glu Lys Gly Arg Ala Gly Leu Leu Arg Val Arg Lys Lys
143 370 375 380
144 Asn Asp Ser Thr Ile Asp Asn Gly Ala Thr Tyr Thr Gln Leu Ser Phe
145 385 390 395 400
146 Leu Ala Arg Val Tyr Thr Ala Gln Lys Gln Glu Arg His Arg Glu Ser
147 405 410 415
148 Phe Leu Lys Gly Leu Asp Tyr Leu Leu Lys Ala Gln Tyr Pro Asn Gly
149 420 425 430
150 Gly Trp Pro Gln Phe Tyr Pro Asn Leu Asn Gly Tyr Tyr Lys His Ile
151 435 440 445
152 Thr Phe Asn Asp Asn Ala Met Ile Gly Val Met Lys Leu Leu Arg Asp
153 450 455 460
154 Val Ala Thr Ala Lys Pro Ala Tyr Ala Phe Val Asp Glu Ala Arg Arg
155 465 470 475 480
156 Thr Ser Ala Ala Lys Ala Val Glu Lys Gly Ile Glu Cys Ile Leu Lys
157 485 490 495
158 Thr Gln Val Val Val Asn Gly Arg Arg Thr Val Trp Cys Ala Gln His
159 500 505 510
160 Asp Glu Val Thr Leu Ala Pro Ala Pro Ala Arg Thr Phe Glu Leu Val
161 515 520 525
162 Ser Leu Ser Gly Gly Glu Ser Val Glu Ile Val Arg Phe Leu Met Ser

```

RAW SEQUENCE LISTING

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:33

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

```

163      530      535      540
164 Ile Lys Asn Pro Ser Pro Ala Val Val Glu Ala Ile Glu Ser Ala Val
165 545      550      555      560
166 Ala Trp Phe Glu Gln Ser Gln Val Lys Asp Pro Ala Gly Lys Pro Ala
167      565      570      575
168 Trp Ala Arg Phe Tyr Glu Ile Gly Thr Asn Arg Pro Ile Phe Ala Gly
169      580      585      590
170 Arg Asp Gly Val Val Lys Tyr Asp Val Lys Gln Ile Asp Glu Glu Arg
171      595      600      605
172 Arg Lys Asn Tyr Ala Trp Tyr Val Asp Asp Ala Ala Lys Leu Leu Lys
173      610      615      620
174 Thr Asp Tyr Pro Glu Trp Lys Glu Lys Asn Ala Lys Asp Gln
175 625      630      635
177 <210> SEQ ID NO: 3
178 <211> LENGTH: 1416
179 <212> TYPE: DNA
180 <213> ORGANISM: Unknown
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Obtained from an environmental sample
185 <400> SEQUENCE: 3
186 atgtcgtcac gacgcgagtt cattagagat ctgttgactg gcggcgcact gatcgccgtc      60
187 ggcgcgcgtc tgtctgcgtt tgcagcggag gagaatccgt gggaaacggt gatgccttcg      120
188 atcgtgaaac gcatcaagcg acctcgtttc ccgatgcgca cgtttgatct cacggagttt      180
189 ggagcgaaaag gtgatggacg aacagattgc acgttggtt tccgtcgcgc gatcgatcga      240
190 tgcacgaacg ccggtggtgg gagagtagtt gttccaccgg gttcgtatct cactggcgcc      300
191 attcatttga agagcaacgt cgaccttcat atctcagaag gtactacggt caagttcagc      360
192 cagaacccga aagactacct gcccgttggt ttctcgcgtt gggaaaggcgt cgaggtgttc      420
193 aactactcgc cttttatcta cgccttcgaa caaacgaaca ttgcgatcac tggcaagggc      480
194 acgctcaacg gtcaaagcga caacgaacac tgggtggccct ggaacggacg tgcccgctac      540
195 ggctggaaaag aagggatgag caatcagcgt cccgatcgaa atgctgtgtt tgcgatggcc      600
196 gaaaaagggtg tcccggttca ggagcgcatt tttggtgagg gccattactt aaggccgcag      660
197 ttcatccaac cttatcgttg tgagaacgtg ctgatcgaag gtgtcactat tcgaaactcg      720
198 ccgatgtggg aaattcatcc ggtgctctgc cggaatgtca tcgtccaaaa tgtgatcatc      780
199 aacagtcattg gtccaaacaa cgacgggtgt aatcctgagt cgtgcacgga tgtgttgatt      840
200 aaggattgtg acttcgacac tggtagcatg tgcgtcgcga tcaagtcagg ccgaaatgca      900
201 gatggggcgc gactgaaggc tcctactgaa aacattatcg tgactgggtg tcgcatgaaa      960
202 gatgggtcacg gcgggattac ggtgggcagc gagatttcgg gtgggggtgcg aaatcttttc      1020
203 gcatccaact gccggctcga cagtccgaac ctggaccatg cattgcgggt taagaataac      1080
204 gctatgcgtg gcgggctggt ggagaatctg cacttccgaa atatcgacgt cgggcaagtg      1140
205 gcgcacgcgg tgatcacgat cgatttcaat tatgaggaag gcgcgaaggg atcgttcacg      1200
206 ccagtcgttc gtgattacac cgtcgatggc cttcgcagca cgaaaagtaa gtacgcgctc      1260
207 gatgtgcagg gcttggcgac ggcgcgcgatc gtgaatctgc gtctaaccac ctgcattctc      1320
208 gacaatgtcg ctgaaggaaa tgttgatgaag aacgtaaagg atgcaactat cgagaatgtc      1380
209 aaaatcaatg gaaaaagcgt tgatgcagtg ccgtag      1416
211 <210> SEQ ID NO: 4
212 <211> LENGTH: 471
213 <212> TYPE: PRT
214 <213> ORGANISM: Unknown
216 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:33

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

```

217 <223> OTHER INFORMATION: Obtained from an environmental sample
W--> 219 <221> NAME/KEY: SIGNAL
      220 <222> LOCATION: (1)...(28)
W--> 222 <221> DOMAIN
      223 <222> LOCATION: (81)...(476)
      224 <223> OTHER INFORMATION: Catalytic domain
W--> 226 <400> 4
      227 Met Ser Ser Arg Arg Glu Phe Ile Arg Asp Leu Leu Thr Gly Gly Ala
      228 1 5 10 15
      229 Leu Ile Ala Val Ala Pro Arg Leu Ser Ala Phe Ala Ala Glu Glu Asn
      230 20 25 30
      231 Pro Trp Glu Thr Val Met Pro Ser Ile Val Lys Arg Ile Lys Arg Pro
      232 35 40 45
      233 Arg Phe Pro Met Arg Thr Phe Asp Leu Thr Glu Phe Gly Ala Lys Gly
      234 50 55 60
      235 Asp Gly Arg Thr Asp Cys Thr Leu Ala Phe Arg Arg Ala Ile Asp Arg
      236 65 70 75 80
      237 Cys Thr Asn Ala Gly Gly Arg Val Val Pro Pro Gly Ser Tyr
      238 85 90 95
      239 Leu Thr Gly Ala Ile His Leu Lys Ser Asn Val Asp Leu His Ile Ser
      240 100 105 110
      241 Glu Gly Thr Thr Val Lys Phe Ser Gln Asn Pro Lys Asp Tyr Leu Pro
      242 115 120 125
      243 Val Val Phe Ser Arg Trp Glu Gly Val Glu Val Phe Asn Tyr Ser Pro
      244 130 135 140
      245 Phe Ile Tyr Ala Phe Glu Gln Thr Asn Ile Ala Ile Thr Gly Lys Gly
      246 145 150 155 160
      247 Thr Leu Asn Gly Gln Ser Asp Asn Glu His Trp Trp Pro Trp Asn Gly
      248 165 170 175
      249 Arg Ala Ala Tyr Gly Trp Lys Glu Gly Met Ser Asn Gln Arg Pro Asp
      250 180 185 190
      251 Arg Asn Ala Leu Phe Ala Met Ala Glu Lys Gly Val Pro Val Gln Glu
      252 195 200 205
      253 Arg Ile Phe Gly Glu Gly His Tyr Leu Arg Pro Gln Phe Ile Gln Pro
      254 210 215 220
      255 Tyr Arg Cys Glu Asn Val Leu Ile Glu Gly Val Thr Ile Arg Asn Ser
      256 225 230 235 240
      257 Pro Met Trp Glu Ile His Pro Val Leu Cys Arg Asn Val Ile Val Gln
      258 245 250 255
      259 Asn Val Ile Ile Asn Ser His Gly Pro Asn Asn Asp Gly Cys Asn Pro
      260 260 265 270
      261 Glu Ser Cys Thr Asp Val Leu Ile Lys Asp Cys Asp Phe Asp Thr Gly
      262 275 280 285
      263 Asp Asp Cys Ile Ala Ile Lys Ser Gly Arg Asn Ala Asp Gly Arg Arg
      264 290 295 300
      265 Leu Lys Ala Pro Thr Glu Asn Ile Ile Val Thr Gly Cys Arg Met Lys
      266 305 310 315 320
      267 Asp Gly His Gly Gly Ile Thr Val Gly Ser Glu Ile Ser Gly Gly Val
      268 325 330 335

```

VERIFICATION SUMMARY

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:34

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

L:21 M:270 C: Current Application Number differs, Replaced Current Application Number
L:22 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:84 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:87 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:91 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:95 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:219 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:222 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:226 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:324 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:328 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:413 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:417 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:504 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:507 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:511 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:599 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:603 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:691 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:694 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:698 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:794 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:898 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:902 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:985 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:989 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:20
L:1079 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1082 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22
L:1086 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22
L:1180 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1183 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24
L:1187 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24
L:1277 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1280 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:26
L:1284 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:26
L:1386 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1389 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:28
L:1393 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:28
L:1397 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:28
L:1521 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1524 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:30
L:1528 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:30
L:1632 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1636 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:32
L:1734 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1737 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34
L:1741 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34
L:1823 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

VERIFICATION SUMMARY

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:34

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

L:1827 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:36
L:1924 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1927 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:38
L:1931 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:38
L:2047 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2050 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:40
L:2054 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:40
L:2138 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2141 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:42
L:2145 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:42
L:2243 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2247 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:44
L:2251 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:44
L:2255 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:44
L:2372 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2375 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
L:2379 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
L:2459 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2462 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
L:2466 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
L:2550 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2553 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
L:2557 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
L:2640 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2644 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52
L:2745 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2748 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:2752 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:2756 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:2760 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:2883 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2975 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3067 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3161 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3255 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3461 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3598 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3687 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3779 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:3888 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4024 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4175 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4294 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4428 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4628 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4729 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4851 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4955 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5044 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

VERIFICATION SUMMARY

DATE: 01/11/2006

PATENT APPLICATION: US/10/501,442

TIME: 14:15:34

Input Set : E:\56446-20096.40 (840W01) SEQ LISTING.txt

Output Set: N:\CRF4\01112006\J501442.raw

L:5131 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5239 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5385 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5512 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5618 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!